## BEFORE

## THE PUBLIC SERVICE COMMISSION OF

## SOUTH CAROLINA

DOCKET NO. 2007-292-E - ORDER NO. 2007-644

**SEPTEMBER 26, 2007** 

IN RE:	Petition of South Carolina Electric & Gas	)	ORDER AUTHORIZING
	Company for an Order Authorizing the	)	DEFERMENT OF COSTS
	Deferment of Costs Incurred in Connection	)	
	with the Temporary Remedial Measures and	)	
	Permanent Reconfiguration of the Flow of	)	
	Coolant in the Pressurized Water Reactor at	)	
	V.C. Summer Nuclear Station.	)	

This matter comes before the Public Service Commission of South Carolina (the "Commission") on the Petition of South Carolina Electric & Gas Company ("SCE&G" or the "Company") for an accounting order for regulatory accounting purposes authorizing SCE&G to defer all costs incurred in connection with the Company's reconfiguration of the flow of coolant in the pressurized water reactor of V.C. Summer Nuclear Station ("Summer Station") to minimize the effects of baffle jetting, including the costs that SCE&G incurred in 2007 in connection with its temporary remedial measure of fuel rod clipping and any future costs that the Company may incur associated with fuel rod clipping to minimize baffle jetting.

According to the Company, the request for relief set forth herein will not involve a change to any of SCE&G's rates or prices, or require any change in any Commission rule, regulation, or policy. In addition, the issuance of the requested accounting order will not prejudice the right of any party to address this issue in a subsequent general rate case

proceeding. For this reason, the Company states its belief that neither notice to the public nor a hearing is required regarding this Petition. We agree with the Company in this regard.

SCE&G notes that it operates a nuclear facility in Jenkinsville, South Carolina. The reactor at Summer Station is a pressurized water reactor which requires cooling. In order to cool the reactor, a flow of water is directed through the vessel, core barrel and baffle plate regions. The coolant currently flows in a downflow configuration which results in a high differential pressure between the baffle plate and core. Within the nuclear industry, many reactors of this design have experienced "baffle jetting," which is a hydraulic induced instability or vibration of fuel rods caused by the high velocity jet of water flowing through the reactor. In some instances, baffle jetting can cause fuel rods to leak and disburse uranium into the coolant; therefore, remedial measures must be taken to prevent such an occurrence.

In 2003-2004, according to the Company, one fuel rod assembly at Summer Station experienced damage as a result of baffle jetting. During refuel outage number sixteen, SCE&G identified the damaged fuel rod assembly and removed it from service. In an attempt to prevent future baffle jetting damage, SCE&G implemented an interim, industry accepted engineering solution known as fuel rod clipping. Fuel rod clipping minimizes fuel rod vibration caused by baffle jetting, but it is a temporary solution. To combat the effects of baffle jetting, a long term remedial measure is required.

SCE&G notes that the nuclear industry has determined that the best long-term solution for baffle jetting is to reverse the flow of coolant from a downflow configuration

to an upflow configuration. This reconfiguration is designed to equalize the differential hydraulic pressure within the core and thus, prevent the baffle jetting effect. The Company plans to conduct the upflow conversion during refuel outage number eighteen in 2009. In the meantime, the Company will continue its practice of fuel rod clipping, if necessary, to reduce the effects of baffle jetting.

Over the next three years, SCE&G expects to spend approximately \$5.5 million to engineer and implement the upflow reconfiguration. While the vast majority of this projected cost consists of the upflow reconfiguration itself, a small portion of this cost includes the costs that the Company incurred in 2007 in connection with its temporary remedial measure of fuel rod clipping.

In anticipation of conducting the upflow conversion, SCE&G seeks authorization from the Commission to defer all costs incurred in connection with the reconfiguration, including the costs incurred in 2007 related to fuel rod clipping and any future costs that the Company may incur associated with fuel rod clipping. Wherefore, SCE&G requests that the Commission issue an Order granting the Company the authority to defer all costs incurred in connection with the Company's reconfiguration of the flow of coolant in the pressurized water reactor of V.C. Summer Nuclear Station, including the costs that the Company incurred in 2007 in connection with its temporary remedial measure of fuel rod clipping and any future costs that the Company may incur associated with fuel rod clipping.

We grant the relief sought by the Company, and hereby grant the Company the authority to defer all costs incurred in connection with the Company's reconfiguration of

the flow of coolant in the pressurized water reactor of V.C. Summer Nuclear Station,

including the costs that the Company incurred in 2007 in connection with its temporary

remedial measure of fuel rod clipping and any future costs that the Company may incur

associated with fuel rod clipping. We believe that the Company has stated good cause for

the granting of this relief. However, we would state that this ruling is not intended to

address the appropriateness of these costs for rate case purposes. We will examine these

costs at the appropriate time in a future rate case.

This Order shall remain in full force and effect until further Order of the

Commission.

BY ORDER OF THE COMMISSION:

G. O'Neal Hamilton, Chairman

ATTEST:

. Robert Moseley, Vice Chairma

(SEAL)